

**METHOD AND APPARATUS FOR DISTRIBUTED BANDWIDTH
ALLOCATION FOR A BI-DIRECTIONAL RING MEDIA WITH
SPATIAL AND LOCAL REUSE**

ABSTRACT OF THE DISCLOSURE

5 A system and method for locally determining a fair allocated bandwidth
for a network node configured to send and receive packets in an upstream
direction and a downstream direction is disclosed. A local allocated bandwidth is
allocated for locally generated network packets sent in the downstream direction.
A minimum downstream available network bandwidth is determined from
10 information received in the upstream direction. The local allocated bandwidth is
adjusted based on the minimum downstream available network bandwidth and the
local allocated bandwidth is used to govern whether a class of locally generated
network packets are sent in the downstream direction.